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Hit List

First Hit Clear Generate Collection D. Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 2 of 2 returned.

√ 1. Document ID: US 5664172 A

L4: Entry 1 of 2 File: USPT Sep 2, 1997

US-PAT-NO: 5664172

DOCUMENT-IDENTIFIER: US 5664172 A

TITLE: Range-based query optimizer

DATE-ISSUED: September 2, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Antoshenkov; Gennady Amherst NH

ASSIGNEE-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY TYPE CODE

Oracle Corporation Redwood Shores CA 02

APPL-NO: 08/277550 [PALM] DATE FILED: July 19, 1994

INT-CL-ISSUED: [06] G06F 17/30

INT-CL-CURRENT:

TYPE IPC DATE CIPP <u>G06 F 17/30</u> 20060101

US-CL-ISSUED: 395/604; 395/603 US-CL-CURRENT: 707/4; 707/3

FIELD-OF-CLASSIFICATION-SEARCH: 395/600, 395/161, 395/603, 395/604

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

 PAT-NO
 ISSUE-DATE
 PATENTEE-NAME
 US-CL

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 June 1976
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 4118788
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ART-UNIT: 237

PRIMARY-EXAMINER: Black; Thomas G.

ASSISTANT-EXAMINER: Lintz; Paul R.

ATTY-AGENT-FIRM: Lowe, Price, LeBlanc & Becker

ABSTRACT:

Record List Display Page 3 of 4

A computerized query optimizer for use with a database system having an ordered set of records. The optimizer employs a scanner and an evaluator. A query is composed as ranges of record values related by logical operators. The query is converted to a Boolean tree in canonical form. The tree is optimized to express the ranges as a set of disjoint semi-open ranges. The scanner reads a next record from the database. The evaluator, using the query, delivers a logical true or false condition for the record. In addition, the evaluator also delivers an interval of values having the same logical condition as the logical condition of the record. If this logical condition is false, the scanner skips over records having values of the interval, otherwise, if the logical condition is true, records having values of the interval are selected.

10 Claims, 19 Drawing figures

Full Title Citation Front Review Classification Date Reference Semiences Attachments Claims KWC [Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Atjactiments	Claims	KWIC	Drawd
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2. Document ID: US 5664172 A

L4: Entry 2 of 2

File: DWPI

Sep 2, 1997

DERWENT-ACC-NO: 1997-448262

DERWENT-WEEK: 200279

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TITLE: Computerised query optimiser for database with ordered set of records - converts query to Boolean tree in canonical form before scanning records, and collapses overlapping ranges related by AND operator into single intersecting range and those related by OR to union of ranges

INVENTOR: ANTOSHENKOV, G

PRIORITY-DATA: 1994US-0277550 (July 19, 1994)

PATENT-FAMILY:

 PUB-NO
 PUB-DATE
 LANGUAGE
 PAGES
 MAIN-IPC

 US 5664172 A
 September 2, 1997
 034
 G06F017/30

INT-CL (IPC): G06F 17/30

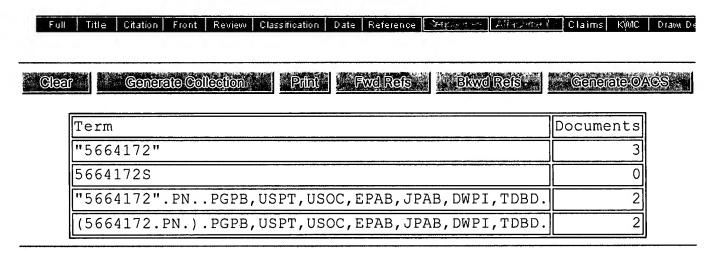
ABSTRACTED-PUB-NO: US 5664172A

BASIC-ABSTRACT:

The optimiser employs a scanner and an evaluator. A query is composed as ranges of record values related by logical operators. The query is converted to a Boolean tree in canonical form. The tree is optimized to express the ranges as a set of disjoint semi-open ranges. The scanner reads a next record from the database.

The evaluator, using the query, delivers a logical true or false condition for the record. The evaluator also delivers an interval of values having the same logical condition as the logical condition of the record. If this logical condition is false, the scanner skips over records having values of the interval, otherwise, if the logical condition is true, records having values of the interval are selected.

ADVANTAGE - Determines near-largest interval for which selection criteria is always false and avoids scanning corresp parts of database.



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